

DOCKET NO. TELE03-00004  
SERIAL NO. 10/713,309  
PATENT

**REMARKS**

Claims 1-13 are pending in the present application.

Claims 1-13 have been rejected.

Claim 13 has been amended.

Reconsideration of the claims is respectfully requested.

**I. CLAIM REJECTIONS -- 35 U.S.C. § 102**

The August 15, 2007 Office Action rejected Claim 13 under 35 U.S.C. § 102(b) as being as being anticipated by United States Patent No. 6,371,845 to Ishida et al. ("*Ishida*"). In response, the Applicants have amended Claim 13.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131, p. 2100-76 (8th ed., rev. 4, October 2005) (*citing In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. *Id.* (*citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)).

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The current rejection states:

The coin dispenser disclosed by Ishida is operated by performing steps comprising establishing a selected height of stack of coins 41 correlated to a predetermined number of coins in said stack (see Figures 2 and 3), sensing the presence of said coins at said selected height (via sensor 23) and generating a signal in response thereto (see column 6, lines 47-56), storing the number of coins contained in a full stack of coins in response to said sensor signal (via RAM 13), and counting the number of dispensing operations and subtracting said number of dispensing operations from said stored number of coins in a stack to determine the number of coins remaining in the stack (see Figure 5). (August 15, 2007 Office Action, Page 2, Lines 10-18)

Claim 13, as amended, now claims a method of accounting for coins that are dispensed from a coin stack that senses the presence of the coins at a selected height at any level within the coin receptacle. The *Ishida* reference describes a full coin switch 23 that detects a full stack of coins and an empty coin switch 22 that detects when a stack has no coins in it. The Applicants' method can detect the coins at a selected height at any level in the receptacle by using the sensor array of the Applicants' invention. The Applicants respectfully submit that the amendment of Claim 13 distinguishes over the *Ishida* reference.

Accordingly, the Applicants respectfully request the Examiner to withdraw the § 102 anticipation rejection of Claim 13, as amended.

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## II. CLAIM REJECTIONS -- 35 U.S.C. § 103

The August 15, 2007 Office Action rejected Claims 1-12 under 35 U.S.C. § 103(a) as follows.

(1) Claims 1, 3-8 and 10-12 were rejected as being obvious over United States Patent Application Publication No. 2004/0045787 to Thomas Zimmerman ("*Zimmerman*") in view of United States Patent No. 4,371,783 to Grimmell et al. ("*Grimmell*").

(2) Claim 2 was rejected as being obvious over *Zimmerman* in view of *Grimmell* and further in view of United States Patent No. 5,755,618 to Ewald Mothwurf ("*Mothwurf*").

(3) Claim 9 was rejected as being obvious over *Zimmerman* in view of *Grimmell* and further in view of United States Patent No. 4,746,319 to Zwieg et al. ("*Zwieg*").

The Applicants respectfully traverse these rejections.

During *ex parte* examinations of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of non-obviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then

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without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 USPQ 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not be based on an applicant's disclosure. MPEP § 2142.

Claims 1, 3-8 and 10-12 were rejected as being obvious over *Zimmerman* in view of *Grimmell*. The *Zimmerman* reference discloses a coin presence sensor 5 on one side of a coin receptacle 2. The *Zimmerman* reference teaches the use of a sensor 11 that comprises a light transmitting device and a light receiving device. In the *Zimmerman* sensor device 11 the light is supposed to be reflected from a coin 3 in the receptacle. The *Zimmerman* apparatus does not provide any means (such as a mask and access port) for preventing the light receiving device in sensor 11 from exposure to light from the light transmitting device is sensor 11. Therefore, the sensor 11 would always "sense" that there is a coin 3 in the receptacle whether a coin 3 was

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actually present or not. In short, the *Zimmerman* device shown in Figure 6 is not operable to achieve its stated goal. The inventor (Thomas Zimmerman) seems to be completely unaware that this problem even exists in this particular embodiment of the *Zimmerman* device.

The August 15, 2007 Office Action suggested that the deficiencies of the *Zimmerman* reference could be remedied incorporating the mask 2 of the *Grimmell* reference into the sensor 11 of the *Zimmerman* reference and that it would have been obvious to one of ordinary skill in the art to do so. (August 15, 2007 Office Action, Page 4, Lines 3-10. The Applicants respectfully traverse these assertions.

There is no suggestion in the *Zimmerman* reference that the sensor 11 of *Zimmerman* is not operable. Therefore, there would have been no reason to assume that any additional structure would be required to make the *Zimmerman* sensor 11 operable. In particular, there would have been no obvious reason to assume it would be advantageous to use a mask of the type that is disclosed in the *Grimmell* reference.

The Examiner stated that it was the Applicants' position that "the light transmitter/receiver configuration of *Zimmerman* fails to short circuit" and that this position "implies that a mask is inherent in said configuration." (August 15, 2007 Office Action, Page 6, Lines 3-5). The Applicants respectfully traverse these assertions of the Examiner. The Applicants assert that the *Zimmerman* sensor 11 does short circuit the light between the transmitter and the receiver. The Applicants further assert that there is no mask that is inherent in the *Zimmerman* reference. There has been no showing of inherency of a mask in the *Zimmerman* reference. The Applicants further assert that even if the *Grimmell* reference teaches the use of a mask, there is no

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motivation to add the mask of the *Grimmell* reference to the *Zimmerman* reference. There is no suggestion in the *Zimmerman* reference that a mask is needed.

The Applicants respectfully submit that the concept of using such a mask in the *Zimmerman* sensor 11 is not suggested by the prior art but comes from the Applicants' disclosure. Evidence of a motivation to combine prior art references must be clear and particular if the trap of "hindsight" is to be avoided. *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999) (Evidence of a suggestion, teaching or motivation to combine prior art references must be "clear and particular." "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'"). *In re Roufett*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed.Cir. 1998) ("[R]ejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'")

The claims as a whole must be considered. The claims must not be dismantled and considered on the basis of individual features. It is well settled that "the actual determination of the issue requires an evaluation in the light of the findings in those inquiries of the obviousness of the claimed invention as a whole, not merely the differences between the claimed invention and the prior art." *Graham v. John Deere Co.*, 383 U.S. 17 (1966). "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that

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'[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." *In re Fitch*, 972 F.2d 1260 (Fed. Cir. 1992).

The Applicants respectfully submit that this type of "hindsight reconstruction" has occurred in the rejections that are set forth in the August 15, 2007 Office Action. The Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the claims of the Applicant's invention. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicant's invention in Claims 1, 3-8 and 10-12.

The August 15, 2007 Office Action also rejected Claim 2 as being obvious over *Zimmerman* in view of *Grimmell* and further in view of *Mothwurf*. The Applicants respectfully traverse this rejection of Claim 2. The Applicants incorporate by reference and repeat the statements and arguments previously made with respect to the *Zimmerman* reference and the *Grimmell* reference. The August 15, 2007 Office Action stated that it would have been obvious to use photodiode transmitters and phototransistor receptors of *Mothwurf*. The *Mothwurf* reference teaches the use of photodiode transmitters and phototransistor receptors to form a "light curtain" that can be interrupted by the presence of a coin or coin-like article 5. (*Mothwurf*, Column 5, Lines 34-41). There is no reflection of light from a coin or coin-like article 5. That is, the light from a *Mothwurf* transmitter is not reflected to a *Mothwurf* receiver.

The *Mothwurf* reference states that the transmitters 623 and the receivers 641 must radiate a wavelength that goes through the separators 6 that hold the coins or coin-like articles 5. The transmitters 623 and the receivers 641 in the *Mothwurf* reference are contained within the

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separators 6. "A precondition for the orderly operation of this measurement device is naturally that the separators 6 comprise a material which is permeable for the wavelength radiated from the transmitters 623 and received by the receivers 641." (*Mothwurf*, Column 5, Lines 18-22).

There is no teaching or suggestion in the *Mothwurf* reference to use photodiode transmitters and phototransistors receptors in the manner used by the Applicants. As previously mentioned, there is no reflection of light from a coin or coin-like article. There is no mask having apertures aligned with the transmitter and receivers to isolate the receivers from exposure to light transmitted light prior to reflection.

The Applicants respectfully submit that the Applicant's invention as claimed in Claim 2 is not obvious in view of the *Zimmerman* reference or the *Grimmell* reference or the *Mothwurf* reference whether taken singly or in combination. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicant's invention in Claim 2.

The August 15, 2007 Office Action also rejected Claim 9 as being obvious over *Zimmerman* in view of *Grimmell* and further in view of *Zwieg*. The Applicants respectfully traverse this rejection of Claim 9. The Applicants incorporate by reference and repeat the statements and arguments previously made with respect to the *Zimmerman* reference and the *Grimmell* reference. The August 15, 2007 Office Action stated that it would have been obvious to use the different output voltages of *Zwieg*. There is no teaching or suggestion in the *Zwieg* reference to use such high and low output voltages in the manner used by the Applicants. The Applicants respectfully submit that the Applicant's invention as claimed in Claim 9 is



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not obvious in view of the *Zimmerman* reference or the *Grimmell* reference or the *Zwieg* reference whether taken singly or in combination. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicant's invention in Claim 9.

In view of the amendments to the claims and the arguments set forth above, the Applicant respectfully requests the Examiner to withdraw all of the § 102 rejections and all of the § 103 rejections with respect to Claims 1-13, as amended.

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SUMMARY

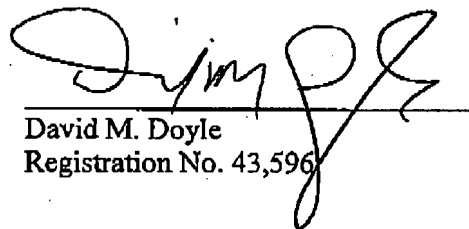
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at [ddoyle@munckbutrus.com](mailto:ddoyle@munckbutrus.com).

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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